

Amendments to the Drawings

Please amend the application by replacing the original Fig. 1 and Fig. 3 with the amended Fig. 1 and Fig. 3. The separate replacement sheets are attached to this response.

REMARKS

In response to the above-identified Office Action, Applicants amend the application and seek reconsideration thereof in this response. No claims have been added or cancelled. Applicants amended claims 2 and 11-16 to correct minor informalities. Accordingly, claims 1-22 are pending. It is not the Applicants intent to surrender any equivalents because of the amendments or arguments made herein. Reexamination and reconsideration of the application, as amended, are respectfully requested.

Title Objection

The Examiner required a new title that is clearly indicative of the invention to which the claims are directed. The Applicants have amended the title to "Determination of Whether One or More Micro Operations Belong to a Branch Path That Is Dependent on a Mispredicted Branch Based on Assigned Identification" to expedite prosecution. No new matter has been added and the changes were not made for reasons of patentability. Accordingly, Applicants respectfully request reconsideration and withdrawal of the objection to the title.

Drawing Objections under 37 C.F.R. 1.83(a)

The Examiner objected to the drawings for failing to show every feature of the invention specified in the claims. Specifically, the Examiner objected to the drawings

for failing to show the assigning of sequence numbers. In order to expedite prosecution, Applicants have amended Fig. 3 to comply with the Examiner's request.

The Examiner objected to the drawings for failing to show "stalling the allocator" as recited in claim 8. Applicants have amended Fig. 1 to include this claim limitation in the drawing.

Accordingly, Applicants respectfully request reconsideration and withdrawal of both of the objections to the drawings.

Claim Objections

The Examiner objected to claims 12-16 for containing informalities. The Applicants have amended these claims to address the informalities identified by the Examiner. Such amendments are not made for reasons of patentability, since the claims were not rejected, and are merely to make the claims more clear for the Examiner to understand. Accordingly, Applicants respectfully requests reconsideration and withdrawal of the objection.

Claim Rejection under 35 U.S.C. §102

The Examiner rejected claims 1-2, 6-13 and, 17-22 under 35 U.S.C. §102 as being anticipated by U.S. Patent No. 6,065,115 issued to Sharangpani et al. (Sharangpani). Applicants respectfully traverse this rejection.

To anticipate a claim, a reference must disclose every element of the claim. With respect to claim 1, Sharangpani fails to teach “assigning an identification number to **each of a plurality** of micro-operations” (emphasis added). Similar language appears in claims 10 and 19, “assign [a plurality of] micro-operations (uops) identification numbers (IDs).” The Examiner alleges that the identifier of Sharangpani (Fig. 5, tag 504), anticipates the Applicants’ cited claim language. However, Sharangpani teaches that a tag field 504 stores an identifier of one instruction stream associated with a pointer. Col. 10, lines 6-20. An identifier of **an instruction stream** and a pointer are not the same as the cited claim language. Because Sharangpani fails to teach every element of claims 1, 10, and 19, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. §102 rejection of these claims.

Applicants believe that claims 1, 10, and 19 are not anticipated by Sharangpani for the reasons set forth above. Claims 2-9, 11-18, and 20-22 depend from independent claims 1, 10, and 19 and therefore, Applicants believe claims 2-9, 11-18, and 20-22 are not anticipated by Sharangpani. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Claim Rejections under 35 U.S.C. § 103

The Examiner rejected claims 3-5 and 14-16 under 35 U.S.C. §103(a) as obvious over Sharangpani, *supra*, in view of U.S. Pat. App. Pub. No. 2003/0061258 by Rodgers et al. (Rodgers). Applicants respectfully traverse this rejection.

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, basic criteria must be met. There must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. There must be a reasonable expectation of success and the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

Claims 3-5 and 14-16 are not obvious over Sharangpani in view of Rodgers because both fail to teach "assigning an identification number (ID) to each of a plurality of micro-operations (uops) to identify a branch path to which the uop belongs." As discussed above, with regard to claims 1, 10, and 19, Sharangpani fails to teach "assigning an identification number to each of a plurality of micro-operations."

Furthermore, Rodgers fails to cure this deficiency. Applicants have reviewed the Rodgers reference and are unable to find any teaching or suggestion of the cited claim language. If the Examiner maintains this rejection, Applicants respectfully request a specific reference or explanation as to how the cited references teach the limitation of these claims. Because claims 3-5 and 14-16 depend from claims 1 and 10, Applicants believe that claims 3-5 and 14-16 are not made obvious over Sharangpani in view of

Rodgers because neither reference teaches, suggests or makes obvious all of the elements of these claims.

The Examiner also fails to provide a statutorily valid suggestion or motivation found in the art to modify Sharangpani in view of Rodgers. On page 9, the Examiner's Office Action recites that:

"[It] would be desirable to have a system to ensure that all instructions are retired in a correct order to ensure proper processor functionality. It would have been obvious to one of ordinary skill in the art at the time of invention to have included Rodgers' issue fee/retire scheme of assigning and using sequence numbers in Sharangpani's processor for the benefit of ensuring proper operation."

This justification seems to be based on hindsight after reviewing the Applicant's application. The Examiner's motivation to combine fails to provide some suggestion or motivation found in the art to make the combination or modification. Accordingly, Applicants respectfully requests reconsideration and withdrawal of the obviousness rejection of claims 3-5 and 14-16.

For the aforementioned reasons, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 3-5, and 14-16.

CONCLUSION


In view of the foregoing, Applicants believe that all claims are now in condition for allowance and Applicants earnestly solicit such action at the earliest possible date. If there are any additional fees due in connection with the filing of this response, please charge those fees to our Deposit Account No. 02-2666. If the Examiner believes that a

telephone conference would be useful in moving the application forward to allowance,
the Examiner is encouraged to contact the undersigned at (310) 207 3800.

Respectfully submitted,

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Dated: April 28, 2006



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CERTIFICATE OF MAILING:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.



Susan M. Barrette

4/28/06
April 28, 2006